

1. A two-phase gel composition comprising:

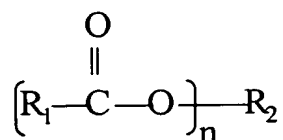
a gelled ester composition comprising a mixture of an ester compound and a polymer compound selected from the group consisting of triblock copolymers, star polymers, radial polymers, multi-block copolymers, and a combination thereof, the gelled ester composition having a viscosity  $\eta_1$ ; and

a hydrophobic, non polar solvent, the solvent having a viscosity  $\eta_2$ , wherein the two-phase gel composition is substantially free of phosphate compounds and has a viscosity  $\eta$  which is greater than or equal to  $\eta_1$  and which is greater than or equal to  $\eta_2$ .

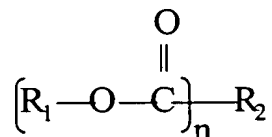
2. The two-phase gel composition of claim 1, wherein the two-phase gel composition has a viscosity which is substantially greater than or equal to the sum of  $\eta_1$  and  $\eta_2$ .

3. The two-phase gel composition of claim 1, further comprising a diblock copolymer, wherein the gelled ester composition is substantially free of mineral oils.

4. The two-phase gel composition of claim 1, wherein the ester compound is represented by the following formulas:



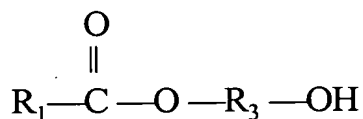
3 and



4 wherein n=1, 2, 3, and 4, and R<sub>1</sub> includes hydrogen, hydrocarbyl, phenyl, methoxyphenyl,  
5 alkylphenyl, substituted alkyl, or substituted phenyl; and

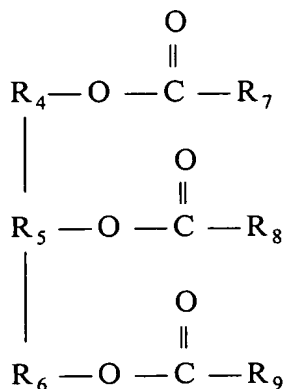
6 R<sub>2</sub> includes hydrogen, hydrocarbyl, phenyl, methoxyphenyl, alkylphenyl, substituted alkyl,  
7 substituted phenyl, alkylene, phenylene, substituted alkylene, or substituted phenylene.

1 5. The two-phase gel composition of claim 1, wherein the ester compound is represented by the  
2 following formula:



3 wherein R<sub>1</sub> includes hydrogen, hydrocarbyl, phenyl, methoxyphenyl, alkylphenyl, substituted  
4 alkyl, or substituted phenyl, and R<sub>3</sub> includes alkylene, phenylene, substituted alkylene, or substituted  
5 phenylene.

1 6. The two-phase gel composition of claim 1, wherein the ester compound is represented by the  
2 following formula:



wherein R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> individually include alkylene, phenylene, substituted alkylene, or substituted phenylene, and R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub> individually include hydrogen, hydrocarbyl, phenyl, methoxyphenyl, alkylphenyl, substituted alkyl, or substituted phenyl.

7. The two-phase gel composition of claim 1, wherein the ester compound is selected from the group consisting of isopropyl myristate, isopropyl palmitate, C<sub>12</sub>-C<sub>15</sub> alkyl benzoate, octyl methoxycinnamate, octyl dodecyl neopentanoate, propylene glycol dicaprylate/caprate, jojoba oil, and isostearyl neopentanoate.

8. The two-phase gel composition of claim 3, wherein the diblock copolymer is selected from the group consisting of styrene-ethylene/propylene copolymers, styrene-ethylene/butadiene copolymers, styrene-isoprene copolymers, styrene-butadiene copolymers, and a mixture thereof.

1 9. The two-phase gel composition of claim 1, wherein the triblock copolymer is selected from the  
2 group consisting of styrene-ethylene/propylene-styrene copolymers, styrene-ethylene/butadiene-styrene  
3 copolymers, styrene-isoprene-styrene copolymers, styrene-butadiene-styrene copolymers, and a mixture  
4 thereof.

1 10. The two-phase gel composition of claim 1, wherein the solvent is selected from the group  
2 consisting of oils, mineral white oils, base oils, technical mineral oils, synthetic hydrocarbons, solid  
3 hydrocarbons, semi-solid hydrocarbons, waxes, petroleum distillates, petrolatums, and combinations  
4 thereof.

1 11. The two-phase gel composition of claim 1, wherein the gelled ester composition is present in the  
2 amount of about 5% to about 95% by weight of the two-phase gel composition.

1 12. The two-phase gel composition of claim 1, wherein the gelled ester composition is present in the  
2 amount of about 10% to about 40% by weight of the two-phase gel composition.

1 13. The two-phase gel composition of claim 1, wherein the solvent is present in the amount of about  
2 5% to about 95% by weight of the two-phase gel composition.

1 14. The two-phase gel composition of claim 1, wherein the solvent is present in the amount of about  
2 60% to about 90% by weight of the two-phase gel composition.

1 15. The two-phase gel composition of claim 1, further comprising a suspended component.

1 16. The two-phase gel composition of claim 15, wherein the suspended component is a solid selected  
2 from the group consisting of organic materials, inorganic materials, organometallic materials,  
3 phosphorescent materials, and fluorescent materials.

1 17. The two-phase gel composition of claim 15, wherein the suspended component is a solid selected  
2 from the group consisting of zinc oxide, coated zinc oxide, surface-treated zinc oxide, titanium dioxide,  
3 coated titanium dioxide, surface-treated titanium dioxide, graphite, explosive materials, air-sensitive  
4 chemicals, moisture-sensitive chemicals, boron nitride, iron oxides, talc, mica, plastics, polymers, silica,  
5 silicon dioxide, aluminum oxide, metal particles, antibacterials, antibiotics, anesthetics, glass, clays, gums,  
6 capsules containing an active ingredient, starch, modified starch, fragrances, color pigments, sunscreen  
7 active particles, glitters, molybdenum oxide, zinc sulfide, copper-doped zinc sulfide, pesticides,  
8 herbicides, fungicides, insecticides, plasticizers, medical materials, antimicrobials, antifungals, other  
9 encapsulated materials, and combinations thereof.

1 18. The two-phase gel composition of claim 15, wherein the suspended component is a liquid  
2 selected from the group consisting of water, water containing a water-soluble material, glycerin,  
3 propylene glycol, butylene glycol, alcohols, acids, surfactants, emulsifiers, polyglycerols, ethers, polar  
4 esters, fluorinated compounds, perfluoropolyethers, silicones, silicon-containing compounds, and

5 combinations thereof.

1 19. The two-phase gel composition of claim 15, wherein the suspended component is a gas selected  
2 from the group consisting of hydrogen, chloride, air, nitrogen, oxygen, carbon dioxide, propane, neon,  
3 helium, and combinations thereof.

1 20. The two-phase gel composition of claim 1, further comprising an active ingredient.

2 21. The two-phase gel composition of claim 20, wherein the active ingredient is selected from the  
3 group consisting of sunscreens, antiperspirants, deodorants, perfumes, cosmetics, emollients, insect  
repellants, pesticides, herbicides, fungicides, plasticizers, insecticides, and medicaments.

1 22. A two-phase gel composition, comprising:

2 a gelled composition selected from the group consisting of a gelled ether composition, a gelled  
3 alcohol composition, a gelled naturally-occurring fats and oil composition, and a combination thereof,  
4 said gelled composition comprising a mixture of an ether compound, an alcohol compound, or a gelled  
5 naturally-occurring fats and oil composition and a polymer compound selected from the group consisting  
6 of diblock copolymers, triblock copolymers, star polymers, radial polymers, multi-block copolymers, and  
7 a combination thereof, the gelled composition having a viscosity  $\eta_1$ ; and

8 a hydrophobic, non polar solvent, the solvent having a viscosity  $\eta_2$ , wherein the two-phase gel  
9 composition has a viscosity  $\eta$  which is greater than or equal to  $\eta_1$  and which is greater than or equal to

10  $\eta_2$ .

1 23. The two-phase gel composition of claim 22, wherein the two-phase gel composition has a  
2 viscosity which is substantially greater than or equal to the sum of  $\eta_1$  and  $\eta_2$ .

3 24. The two-phase gel composition of claim 22, wherein the alcohols include octyl dodecanol or  
4 isostearyl alcohol.

5 25. The two-phase gel composition of claim 22, wherein the ethers include dicaprylyl ether or octyl  
6 methoxycinnamate.

7 26. The two-phase gel composition of claim 22, wherein the naturally-occurring fats and oils include  
8 linseed oil, soybean oil, sunflower seed oil, corn oil, sesame oil, olive oil, castor oil, coconut oil, palm oil,  
9 peanut oil, jojoba oil, or macadamia nut oil.

1 27. The two-phase gel composition of claim 22, wherein the solvent is selected from the group  
2 consisting of oils, mineral white oils, base oils, technical mineral oils, synthetic hydrocarbons, solid  
3 hydrocarbons, semi-solid hydrocarbons, waxes, petroleum distillates, petrolatums, and combinations  
4 thereof.

1 28. The two-phase gel composition of claim 22, wherein the gelled composition is present in the

2 amount of about 5% to about 95% by weight of the two-phase gel composition.

1 29. The two-phase gel composition of claim 22, wherein the gelled composition is present in the  
2 amount of about 10% to about 40% by weight of the two-phase gel composition.

1 30. The two-phase gel composition of claim 22, wherein the solvent is present in the amount of about  
2 5% to about 95% by weight of the two-phase gel composition.

1 31. The two-phase gel composition of claim 22, wherein the solvent is present in the amount of about  
2 60% to about 90% by weight of the two-phase gel composition.

1 32. The two-phase gel composition of claim 22, further comprising a suspended component.

1 33. The two-phase gel composition of claim 32, wherein the suspended component is a solid selected  
2 from the group consisting of organic materials, inorganic materials, organometallic materials,  
3 phosphorescent materials, and fluorescent materials.

1 34. The two-phase gel composition of claim 32, wherein the suspended component is a solid selected  
2 from the group consisting of zinc oxide, coated zinc oxide, surface-treated zinc oxide, titanium dioxide,  
3 coated titanium dioxide, surface-treated titanium dioxide, graphite, explosive materials, air-sensitive  
4 chemicals, moisture-sensitive chemicals, boron nitride, iron oxides, talc, mica, plastics, polymers, silica,



5 silicon dioxide, aluminum oxide, metal particles, antibacterials, antibiotics, anesthetics, glass, clays, gums,  
6 capsules containing an active ingredient, starch, modified starch, fragrances, color pigments, sunscreen  
7 active particles, glitters, molybdenum oxide, zinc sulfide, copper-doped zinc sulfide, pesticides,  
8 herbicides, fungicides, insecticides, plasticizers; medical materials, antimicrobials, antifungals, other  
9 encapsulated materials, and combinations thereof.

1 35. The two-phase gel composition of claim 32, wherein the suspended component is a liquid  
2 selected from the group consisting of water, water containing a water-soluble material, glycerin,  
3 propylene glycol, butylene glycol, alcohols, acids, surfactants, emulsifiers, polyglycerols, ethers, polar  
4 esters, fluorinated compounds, perfluoropolyethers, silicones, silicon-containing compounds, and  
5 combinations thereof.

1 36. The two-phase gel composition of claim 32, wherein the suspended component is a gas selected  
2 from the group consisting of hydrogen, chloride, air, nitrogen, oxygen, carbon dioxide, propane, neon,  
3 helium, and combinations thereof.

1 37. The two-phase gel composition of claim 22, further comprising an active ingredient.

1 38. The two-phase gel composition of claim 37, wherein the active ingredient is selected from the  
2 group consisting of sunscreens, antiperspirants, deodorants, perfumes, cosmetics, emollients, insect  
3 repellants, pesticides, herbicides, fungicides, plasticizers, insecticides, and medicaments.

39. A method of increasing the viscosity of a gelled composition comprising: mixing a gelled composition selected from the group consisting of a gelled ester composition, a gelled ether composition, a gelled alcohol composition, a gelled naturally-occurring fats and oil composition, and a combination thereof with a hydrophobic, non-polar solvent to form a mixture; heating the mixture; agitating the mixture until the mixture becomes homogeneous; and cooling the mixture to form a two-phase gel composition, wherein the two-phase gel composition has a viscosity which is greater than or equal to the viscosity of the gelled composition and which is greater than or equal to the viscosity of the solvent.

40. A method of increasing the viscosity of a gelled composition comprising: heating a gelled composition selected from the group consisting of a gelled ester composition, a gelled ether composition, a gelled alcohol composition, a gelled naturally-occurring fats and oil composition, and a combination thereof; mixing the heated gelled composition with a hydrophobic, non-polar solvent to form a mixture; agitating the mixture until the mixture becomes homogeneous; and cooling the mixture to form a two-phase gel composition, wherein the two-phase gel composition has a viscosity which is greater than or equal to the viscosity of the gelled composition and which is greater than or equal to the viscosity of the solvent.

41. A method of increasing the viscosity of a gelled composition comprising: heating a hydrophobic, non-polar solvent; mixing the heated solvent with a gelled composition selected from the group consisting of a gelled ester composition, a gelled ether composition, a gelled alcohol composition, a

4 gelled naturally-occurring fats and oil composition, and a combination thereof to form a mixture;  
5 agitating the mixture until the mixture becomes homogeneous; and cooling the mixture to form a two-  
6 phase gel composition, wherein the two-phase gel composition has a viscosity which is greater than or  
7 equal to the viscosity of the gelled composition and which is greater than or equal to the viscosity of the  
8 solvent.

1 42. A method of increasing the viscosity of a gelled composition comprising: heating a hydrophobic,  
2 non-polar solvent; separately heating a gelled composition selected from the group consisting of a gelled  
3 ester composition, a gelled ether composition, a gelled alcohol composition, a gelled naturally-occurring  
4 fats and oil composition, and a combination thereof; mixing the heated solvent with the heated gelled  
5 composition to form a mixture; agitating the mixture until the mixture becomes homogeneous; and  
6 cooling the mixture to form a two-phase gel composition, wherein the two-phase gel composition has a  
7 viscosity which is greater than or equal to the viscosity of the gelled composition and which is greater  
8 than or equal to the viscosity of the solvent.

1 43. A method of increasing the viscosity of a gelled composition comprising: mixing a gelled  
2 composition selected from the group consisting of a gelled ester composition, a gelled ether composition,  
3 a gelled alcohol composition, a gelled naturally-occurring fats and oil composition, and a combination  
4 thereof with a hydrophobic, non-polar solvent to form a two-phase gel composition, wherein the two-  
5 phase gel composition has a viscosity which is greater than or equal to the viscosity of the gelled  
6 composition and which is greater than or equal to the viscosity of the solvent.

1 44. The method of claim 43, wherein the two-phase gel composition has a viscosity which is  
2 substantially greater than or equal to the viscosity of the gelled composition and which is substantially  
3 greater than or equal to the viscosity of the solvent.

1 45. The method of claim 43, wherein the two-phase gel composition has a viscosity which is  
2 substantially greater than or equal to the sum of the viscosity of the gelled composition and the viscosity  
3 of the solvent.

1 46. The method of claim 43, wherein the gelled ester composition comprises a mixture of an ester  
2 compound and a polymer compound selected from the group consisting of triblock copolymers, star  
3 polymers, radial polymers, multi-block copolymers, and a combination thereof.

1 47. The method of claim 43, wherein the gelled ether composition comprises a mixture of an ether  
2 compound and a polymer compound selected from the group consisting of diblock copolymers, triblock  
3 copolymers, star polymers, radial polymers, multi-block copolymers, and a combination thereof.

1 48. The method of claim 43, wherein the gelled alcohol composition comprises a mixture of an  
2 alcohol compound and a polymer compound selected from the group consisting of diblock copolymers,  
3 triblock copolymers, star polymers, radial polymers, multi-block copolymers, and a combination thereof.

1 49. The method of claim 43, wherein the gelled naturally-occurring fats and oil composition  
2 comprises a mixture of a naturally-occurring fats and oil compound and a polymer compound selected  
3 from the group consisting of diblock copolymers, triblock copolymers, star polymers, radial polymers,  
4 multi-block copolymers, and a combination thereof.